

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2002-106740

(43)Date of publication of application : 10.04.2002

(51)Int.Cl.

F16K 31/06
F02M 51/00
F02M 59/34

(21)Application number : 2001-096008

(71)Applicant : NIPPON SOKEN INC
DENSO CORP

(22)Date of filing : 29.03.2001

(72)Inventor : ENOMOTO SHIGEIKU
MIYAMOTO YUTAKA
SHINOHARA YUKIHIRO
OSHIMA MICHIIRO

(30)Priority

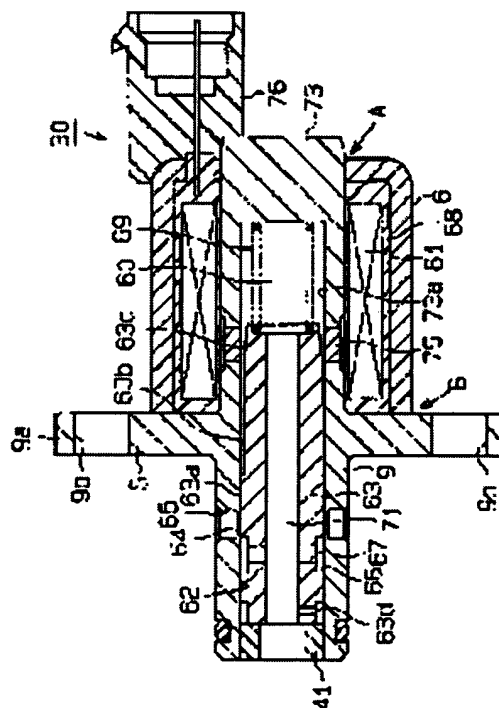
Priority number : 2000228846 Priority date : 28.07.2000 Priority country : JP

(54) SOLENOID VALVE, AND HIGH-PRESSURE PUMP USING THE SAME

(57)Abstract:

PROBLEM TO BE SOLVED: To simplify component constitution by imparting plural functions to one member.

SOLUTION: In this solenoid valve 30, a cylinder 62 is formed in an inner circumferential face of a valve case 9, and a valve element 63 of a spool is stored slidably in the cylinder 62. The valve element 63 is provided with an armature function for forming a magnetic path in addition to such a function essential to the valve element as sliding inside the cylinder 62 to change a flow passage area. The valve case 9 is provided with a stator function for forming the magnetic path in addition to a cylinder function for storing the valve element 63 slidably. The valve element 63 and the valve case 9 are made of a flexible magnetic material, and thin hardened layers are prepared on surfaces thereof by surface treatment or heat treatment.



LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]